

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A data sending/receiving device for issuing a digital certificate to a new data sending/receiving device, when the data sending/receiving device causes the new data sending/receiving device to participate in a network formed by data sending/receiving devices each having a digital certificate that certifies authority to participate in the network; the data sending/receiving device comprising:

a first communication section which performs communication in the network;

a second communication section, to which the new data sending/receiving device can be connected by a wired connection means; and

a control section which performs a dynamic process of issuing the digital certificate through the wired connection means to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate; wherein

when the new data sending/receiving device is connected to the second communication section, the control section judges whether or not the new data sending/receiving device is a device having a communication means that can communicate in the network, in accordance with device type information of the new data sending/receiving device received via the second communication section from the new data sending/receiving device, and

if the new data sending/receiving device is judged as a device having a communication means that can communicate in the network, the control section creates the digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device, the device identifier being received via the second communication section from the new data sending/receiving device, and sends the created digital certificate via the second communication section to the new data sending/receiving device.

Claim 2. (Original) The data sending/receiving device according to claim 1, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network, if the new data

sending/receiving device already has a digital certificate, the control section does not issue a new digital certificate.

Claim 3. (Original) The data sending/receiving device according to claim 1, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the network, the control section creates a digital certificate for the new data sending/receiving device by using the device identifier and sends the created digital certificate to the new data sending/receiving device.

Claim 4. (Currently Amended) A data sending/receiving device for issuing a digital certificate to a new data sending/receiving device, when the data sending/receiving device causes the new data sending/receiving device to participate in a network formed by data sending/receiving devices each having a digital certificate that certifies authority to participate in the network; the data sending/receiving device comprising:

a communication section which performs communication in the network; and

a control section which performs a dynamic process of issuing the digital certificate through the wired connection means to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate; wherein

if the new data sending/receiving device is judged as a device having a communication means that can communicate in the network, the control section creates a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device, the device identifier being received via the data sending/receiving device to which the new data sending/receiving device is connected and via the communication section from the new data sending/receiving device, and controls to send the created digital certificate via the communication section and via the data sending/receiving device to which the new data sending/receiving device is

connected.

Claim 5. (Original) The data sending/receiving device according to claim 4, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network, if the new data sending/receiving device already has a digital certificate, the control section does not issue a new digital certificate.

Claim 6. (Original) The data sending/receiving device according to claim 4, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the network, the control section creates a digital certificate for the new data sending/receiving device by using the device identifier and sends the created digital certificate to the new data sending/receiving device.

Claim 7. (Currently Amended) A digital certificate issuing method for issuing a digital certificate to a new data sending/receiving device when the new data sending/receiving device participates in a network formed by a plurality of data sending/receiving devices each having a digital certificate that certifies authority to participate in the network, the method comprising the steps of:

connecting the new data sending/receiving device through a wired connection means to a certain data sending/receiving device participating in the network in order to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate;

judging[[,]] by a certain data sending/receiving ~~device that is one of the data sending/receiving devices forming the network and is connected to the new data sending/receiving device~~, whether or not the new data sending/receiving device is a device

having a communication means that can communicate in the network in accordance with device type information of the new data sending/receiving device received from the new data sending/receiving device; and

if the new data sending/receiving device is judged as being a device having a communication means that can communicate in the network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received from the new data sending/receiving device and sending the created digital certificate to the new data sending/receiving device, by the certain data sending/receiving device.

Claim 8. (Original) The digital certificate issuing method according to claim 7, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network, if the new data sending/receiving device already has a digital certificate, a new digital certificate is not issued.

Claim 9. (Original) The digital certificate issuing method according to claim 7, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the network, the creating of a digital certificate for the new data sending/receiving device by using the device identifier and the sending of the created digital certificate to the new data sending/receiving device are performed.

Claim 10. (Original) The digital certificate issuing method according to claim 7, wherein the new data sending/receiving device verifies validity of the received digital certificate,

if it is confirmed that the validity exists, the new data sending/receiving device notifies the data sending/receiving device which has issued the digital certificate that the digital certificate has been accepted, and

if it is not confirmed that the validity exists, the new data sending/receiving device requests the data sending/receiving device which has issued the digital certificate to issue a digital certificate again.

Claim 11. (Currently Amended) A digital certificate issuing method for issuing a digital certificate to a new data sending/receiving device when the new data sending/receiving device participates in a network formed by a plurality of data sending/receiving devices each having a digital certificate that certifies authority to participate in the network, the method comprising the steps of:

connecting the new data sending/receiving device through a wired connection means to a certain data sending/receiving device participating in the network in order to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate;

judging, by one of the data sending/receiving devices forming the network, whether or not the new data sending/receiving device is a device having a communication means that can communicate in the network in accordance with device type information of the new data sending/receiving device received ~~via a data sending/receiving device, to which the new data sending/receiving device is connected,~~ from the new data sending/receiving device; and

if the one of the data sending/receiving devices forming the network, which is other than the data sending/receiving device to which the new data sending/receiving device is connected through the wired connection means, judges that the new data sending/receiving device is judged as being a device having a communication means that can communicate in the network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received via the data sending/receiving device, to which the new data sending/receiving device is

connected through the wired connection means, from the new data sending/receiving device and sending the created digital certificate via the data sending/receiving device, to which the new data sending/receiving device is connected through the wired connection means, to the new data sending/receiving device, by the one of the data sending/receiving devices.

Claim 12. (Original) The digital certificate issuing method according to claim 11, wherein even when the new data sending/receiving device is judged as being a device having a communication means which can participate in the network, if the new data sending/receiving device already has a digital certificate, a new digital certificate is not issued.

Claim 13. (Original) The digital certificate issuing method according to claim 11, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the network, the creating of a digital certificate for the new data sending/receiving device by using the device identifier and the sending of the created digital certificate to the new data sending/receiving device are performed.

Claim 14. (Original) The digital certificate issuing method according to claim 11, wherein the new data sending/receiving device verifies validity of the received digital certificate,

if it is confirmed that the validity exists, the new data sending/receiving device notifies the data sending/receiving device which has issued the digital certificate that the digital certificate has been accepted, and

if it is not confirmed that the validity exists, the new data sending/receiving device requests the data sending/receiving device which has issued the digital certificate to issue

a digital certificate again.

Claim 15. (New) A computer readable storage medium having thereon computer executable program for performing a dynamic process of issuing the digital certificate through a wired connection means creating a network, the computer program when executed causes a processor to execute steps of:

judging by a certain data sending/receiving device that is one of the data sending/receiving devices forming the network and is connected through a wired connection means to the new data sending/receiving device, whether or not the new data sending/receiving device is a device having a communication means that communicates in the network in accordance with device type information having the new data sending/receiving device received from the new data sending/receiving device; and

if the new data sending/receiving device is judged as being a device having a communication means that can communicate in the network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received from the new data sending/receiving device and sending the created digital certificate to the new data sending/receiving device, by the certain data sending/receiving device.